

REMARKS

The Office Action dated May 22, 2003 has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

CLAIM REJECTIONS UNDER 35 USC § 102

Claims 1-3 and 8-10 were rejected under 35 U.S.C. 102(e) as being anticipated by *Olofsson et al.* (U.S. Patent No. 6,167,031). The Office Action alleges that *Olofsson* teaches all of the limitations of the claimed invention. Applicants respectfully submit that the prior art cited in the Office Action fails to teach, suggest or disclose the features of the claimed invention.

Claim 1, upon which claims 2-7 are dependent, recites a device for measuring usage of system resources in a communication network. The device comprises means for measuring which radio resources are used by a transmission in a system. The device comprises means for measuring which data service units are used for transmission in the system. In addition, the system includes means for measuring which transmission characteristics are used by transmission in the system. All of the means for measuring are adapted for performing respective collective measurement.

Claim 8, upon which claims 9-14 are dependent, recites a method for measuring a usage of system resources in a communication network. The method measures parameters of circumstances of a transmission in a system. The parameters may be at least radio resources used by said transmission in a system, data service units used for the transmission in the system, and transmission characteristics used by the transmission in

the system. The measuring is carried out collectively.

Applicants submit that *Olofsson* fails to disclose or suggest the elements of the invention as set forth in the claimed invention, and thereby fails to provide the critical and nonobvious advantages that are provided by the invention. In order to anticipate a claim, it is well established that a reference must disclose every element of the claim. *Verdegaal Bros. v. Union Oil Co.*, 2 U.S.P.Q. 2d, 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d (Fed. Cir. 1989).

Olofsson discloses a communication system that supports multiple modulation and channel coding schemes selects an optimum RF link by measuring link quality parameters, such as C/I ratio. All of the available RF links are characterized based on the measured link quality parameters by calculating mean values and variances of the parameters. Based on the characterization of the RF link, user quality values, such as user data throughput and speech quality values, are estimated. The communication system selects the RF link that provides the best user quality value.

Applicant submits that *Olofsson* fails to anticipate the claims because *Olofsson* fails to disclose or suggest each and every element. For instance, *Olofsson* fails to disclose or suggest, at least, means for measuring which "radio resources" are used by a transmission in a system, means for measuring which data service units are used for transmission in the system, and means for measuring which transmission characteristics are used by transmission in the system, wherein all of the means for measuring are

adapted for performing respective “collective measurement.” The Office Action asserts that, since *Olofsson* states, “*All of the available RF links are characterized based on the measured link quality parameters by calculating mean values and variances of the parameters*” (see abstract), this feature may be construed as “*a collective measurement*”. However, in detail, the abstract of *Olofsson* states that “*available RE’ links are characterized*” based on “*measured link quality parameters*”. Furthermore, column 4, lines 45 through 52 of *Olofsson* discloses its device is directed to a selection method that statistically characterizes combinations of available modulation and channel coding schemes using measured link quality parameters to determine which combination provides the best user quality. *Olofsson* measures at least one link quality parameter of at least one RF link, for example, C/I ratio, BER, received signal strength, or time dispersion. Then, at least one channel characteristic measure is calculated based on the measured link quality parameter by computing both its mean value and variance. By introducing the variance of for example C/I ratio, *Olofsson* estimates the type of channel conditions a transmission is susceptible to. Consequently, *Olofsson* estimates how a change of modulation and/or channel coding scheme would effect the link quality. Then, *Olofsson* selects a combination of modulation and channel coding schemes on an RF link that provides the best user quality.

Thus, *Olofsson* quite unambiguously relate to the selection of the best RF link by measuring the prevailing air interface quality etc. That is, this is based on quality measurements and analyses in the RF domain.

According to the present invention, however, the measurements and analyses are targeted to the availability of radio resources (time slot, channel etc.), i.e. the availability of hardware (data service units), and traffic parameters in general, and these analyses are used in assessing the usability of the resources (and not in selecting which RF link to use), as recited in independent claims 1 and 8 and discussed, for example, on page 9, lines 13 through 17 of the application.

In other words, no usage of data service units is measured according to *Olofsson* and *Olofsson* performs a measurement followed by calculations and no collective measurement. As shown in Figure 8, *Olofsson* measures link quality parameters, statistically determines the mean and variance of the link quality parameters, reports the channel characteristics measured to the link quality estimator, performs a mapping function, calculates the user quality and selects the optimum RF link.

Thus, Applicants respectfully submit that *Olofsson* fails to anticipate independent claims 1 and 8.

In addition, claims 2-7 depend from claim 1 and claims 9-14 depend from claim 8 and are therefore allowable for the same reasons that claims 1 and 8 are allowable, respectively.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 6 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Olofsson* (U.S. Patent No. 6,167,031). The Office Action alleged that *Olofsson* discloses all of the elements of the invention with the exception of an associated device

wherein transmission contains high-speed circuit switched data. To cure the alleged deficiency of *Olofsson*, the Office Action takes Official Notice and alleges that transmission containing high-speed circuit switched data is well known in the art. However, the Office Action has failed to provide documentary evidence to support the Office Action's conclusion of Official Notice. As discussed in the M.P.E.P. § 2144.03(B), if Official Notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying the decision to take such notice must be clear and unmistakable. It appears that the Office Action has attempted to provide an assertion of common knowledge by stating "Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include transmission containing high-speed circuit switched data with Olofsson transmission method in order to provide mobile users at data rates up to 38.4 Kbps, four times faster than the standard data rates of the Global System for Mobile communication standard in 1999." Applicants respectfully challenge the factual assertion of the Official Notice because there is no support for such statement or teaching within *Olofsson* nor has the Office Action provided any support that the device of *Olofsson* can be modified to provide mobile users at data rates up to "38.4 Kbps" as suggested in the Office Action. Thus, if the Office continues to maintain this Official Notice, Applicants respectfully request that the Office provide documentary evidence to support this fact in the next Office Action.

Furthermore, claims 6 and 13 depend from claims 1 and 8, respectively and are therefore allowable for the reasons that claims 1 and 8 are allowable. Therefore, as

discussed above, *Olofsson* fails to disclose or suggest, at least, means for measuring which “radio resources” are used by a transmission in a system, means for measuring which data service units are used for transmission in the system, and means for measuring which transmission characteristics are used by transmission in the system, wherein all of the means for measuring are adapted for performing respective “collective measurement.”

Claims 4, 5, 7, 11, 12 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Olofsson* (U.S. Patent No. 6,167,031) in view of *Hakaste et al.* (U.S. Patent No. 6,377,817). The Office Action alleged that *Olofsson* discloses all of the elements of the invention with the exception of a method and an associated device which are part of a base station substation or the switching center of said communication network. The Office Action relied upon *Hakaste* to allegedly cure the deficiencies of *Olofsson*. Applicants respectfully submit that the prior art cited in the Office Action fails to teach, suggest or disclose the features of the claimed invention. Therefore, the rejection is respectfully traversed and reconsideration is respectfully requested for the reasons which follow.

Hakaste discloses an asymmetric data transmission for use in a multi-modulation environment. In column 4, lines 1 through 12, *Hakaste* discloses a plurality of mobile stations located within cells wherein each cell is associated with a base transceiver station. The various BTS 14 are coupled to a base station controller (BSC) 16, which in turn is coupled to a mobile switching center (MSC) 18. The MSC 18 provides

connections through an "A" interface 18A to external telephone and data networks, such as the public switched telephone network (PSTN) 20, as well as to packet data networks. Each BTS 14 may have its own BSC 16. The BSC 16 includes a Radio Resource Management software module or function 16A, or some equivalent thereto, which is employed for managing the radio links in the various cells.

Applicants submit that the prior art fails to disclose or suggest the elements of the invention as set forth in the claims, and thereby fails to provide the critical and nonobvious advantages that are provided by the invention. To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all of the claimed limitations. There must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The teaching or suggestion to make the claimed combination must be found in the prior art, and not be based on Applicants' disclosure. See M.P.E.P. §§ 2143.01 and 2143.03.

Applicants respectfully submit that although the Office Action relies upon *Hakaste* to cure the deficiencies of *Olofsson*, *Hakaste* suffers from the same shortcoming as *Olofsson*. *Olofsson* and *Hakaste*, taken in combination or alone, fails to disclose or suggest, at least, means for measuring which "radio resources" are used by a transmission in a system, means for measuring which data service units are used for transmission in the system, and means for measuring which transmission characteristics are used by

transmission in the system, wherein all of the means for measuring are adapted for performing respective "collective measurement."

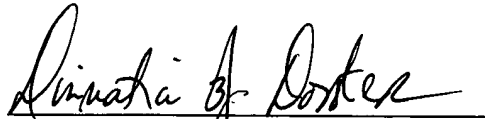
Furthermore, claims 2-7 depend from claim 1 and claims 9-14 depend from claim 8 and are therefore allowable for the same reasons that claims 1 and 8 are allowable, respectively.

Thus, Applicants submit that certain clear and important distinctions exist between the cited prior art and the claimed invention. Applicants submit that these distinctions are more than sufficient to render the claims of the invention unanticipated by and unobvious in view of the prior art. It is therefore requested that claims 1-14 be found allowable, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Dinnatia J. Doster", written over a horizontal line.

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Enclosures: Petition for Extension of Time